

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

CONSTRUCTION AUTHORIZATION

Authorization No.: 5232
Date: 1/4/95

Construction Budget Classification Substation Projects
Project # 6, El. Transm. Budget Item No.: SB001 Budget Year: 1995 Budget Amount: \$883,000
Description: Survey Work And Initiate Permits For The Construction Of A 69 - 13.8 KV Substation
At IRC. Budgeted As "Princeton Road S/S, IRC".
Project Supervisor: T. Meissner/C. Christensen

ESTIMATED COST SUMMARY			APPROVALS			Function/Principal
			Date	Req.		
Total Project Cost:	\$25,000.00		1/9/95	x	T. Meissner	Plant Accountant
Less Customer Contribution:						Manager-Energy Operations
Net Authorized Cost:	\$25,000.00		1/4/95	x	C. Christensen	Manager-Operations
Retirement:	\$0		1/4/95	x	C. Christensen	Chief Engineer
Cost of Removal:	\$0		1/4/95	x	C. Christensen	General Manager
Salvage:	\$0		1/9/95	x	C. Christensen	Controller
List of accounts to be charged	Account	Amount	1/16/95	x	S. E. C. Christensen	VP Operations
Land & Land Rights	2,350.00.00	\$25,000.00	02/10/95	x	C. Christensen	VP Engineering
						VP Energy Resources
			1/12/95	x	C. Christensen	President, UNITIL
			This project will take			crew days to complete.
			Start Date:		1/16/95	Completion Date: 12/31/95
Total Amount:		\$25,000.00				

CWO No	COMPLETE DESCRIPTION	
2096	<p>This authorization will cover the cost to complete necessary survey work and begin the permit process for the construction of a 69 - 13.8 KV substation and associated 69 KV transmission line at Princeton Road, Fitchburg, MA. This project is necessary to feed a proposed 17 MW load addition by Massachusetts Recycling Associates Limited Partnership, also known as IRC.</p> <p>Preliminary Survey And Permit(s) Cost \$25,000.00</p> <p>Total Authorized Amount \$25,000.00</p> <p>Note: This is a preliminary authorization to capture charges associated with permitting and survey work only. This work must be initiated immediately to meet customer deadlines for electric service. The full authorization will be written once technical details are finalized and engineering is completed.</p> <p>Total Budgeted \$883,000.00 Total Authorized To Date \$25,000.00 Balance Available In Budget \$858,000.00</p>	

Closed to Plant: _____

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY CONSTRUCTION AUTHORIZATION

Auth No.: 5232 Supplement
Date: 6/19/95

Construction Budget Classification SUBSTATION PROJECTS
Subject #: 7, El. Dist. Budget Item No.: SB001 Budget Year: 1995, 1996 Budget Amount: 1995 - \$883,000
Description: Construct a 69-13.8 KV distribution substation at the MRALP project site, Princeton Road, Fitchburg, Massachusetts.
The substation will consist of one 12/16/20 MVA power transformer and one 7.5/10.5 MVA power transformer.
Expenditures will be spread over two years. Project Supervisor: T. Melssner / C. Christensen

ESTIMATED COST SUMMARY			Date	Req.	APPROVALS	Function/Principal
Total Project Cost:	\$1,632,327		7/3/95	x	T. Melssner	Plant Accountant
Less Insurance Contribution:						Manager-Energy Operations
Net Authorized Cost:	\$1,632,327		6-27-95	x	W. M. Mudd	Manager-Operations
Retirement:			6-26-95	x	C. E. Christensen	Chief Engineer
Cost of Removal:			6/29/95	x	T. Melssner	General Manager
Salvage:			7/5/95	x	T. Melssner	General Manager
List of accounts to be charged	Account	Amount	7/6/95	x	T. Melssner	VP Operations
Substation Equipment	2.362.00.00	\$ 1,632,327	7/6/95	x	T. Melssner	VP Engineering
			7/6/95	x	T. Melssner	VP Energy Resources
			7/6/95	x	T. Melssner	President
Total Amount:			This project will take _____ crew days to complete.			
			Start Date: 6/26/95		Completion Date: 4/1/96 7/96	

CWO No.	COMPLETE DESCRIPTION	TOTALS																												
3.2115	<p><u>Justification</u></p> <p>This project is necessary to provide for the full service electric requirements of a large paper recycling plant, known as MRALP, in Fitchburg, MA. In addition, this project will provide FG&E with a new 10 MVA, 69-13.8 KV source in a heavily industrialized area, and will allow FG&E to convert existing 13.8 KV Delta distribution circuitry to Grounded Wye construction. Finally, this project will remove all 13.8 KV distribution load from the autotransformer tertiary voltage windings at Flagg Pond substation, thereby improving system reliability and reducing capital expenditures associated with #2 autotransformer replacement.</p> <p>Construct a 69-13.8 KV distribution substation, MRALP Project Site Princeton Road, Fitchburg, Massachusetts.</p> <p>Included within the scope of this authorization:</p> <ul style="list-style-type: none">° One 12/16/20 MVA power transformer to be provided for NRAC.° One 7.5/10.5 MVA power transformer to be provided for FG&E distribution.° Capital expenditures associated with generation interconnection requirements, MRALP steam plant. <p>NOTE: <u>This project is expected to carry over to 1996.</u></p> <p>Capital expenditures are expected to be allocated between MRALP and FG&E over the next two years per the following breakdown:</p> <table><tr><th>Description</th><th><u>1995</u></th><th><u>1996</u></th><th><u>Total</u></th></tr><tr><td>MRALP Substation</td><td>\$449,863</td><td>\$421,712</td><td>\$ 871,575</td></tr><tr><td>Interconnection Req</td><td>\$ 43,616</td><td></td><td>\$ 43,616</td></tr><tr><td>FG&E Substation</td><td>\$387,203</td><td>\$323,333</td><td>\$ 710,536</td></tr><tr><td>AFUDC</td><td><u>\$ 4,161</u></td><td><u>\$ 2,439</u></td><td><u>\$ 6,600</u></td></tr><tr><td></td><td>\$884,843</td><td>\$747,484</td><td>\$ 1,632,327</td></tr><tr><td>Total Expenditures</td><td></td><td></td><td>\$1,632,327</td></tr></table> <p>The estimated in-service date is April 1,1996.</p>	Description	<u>1995</u>	<u>1996</u>	<u>Total</u>	MRALP Substation	\$449,863	\$421,712	\$ 871,575	Interconnection Req	\$ 43,616		\$ 43,616	FG&E Substation	\$387,203	\$323,333	\$ 710,536	AFUDC	<u>\$ 4,161</u>	<u>\$ 2,439</u>	<u>\$ 6,600</u>		\$884,843	\$747,484	\$ 1,632,327	Total Expenditures			\$1,632,327	\$1,632,327.00
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Closed to Plant: _____

FITCHBURG GAS AND ELECTRIC LIGHT COMPANY

CONSTRUCTION AUTHORIZATION

Authorization No.: 5232 Supplement

Date: 6/19/95

CWO No.	COMPLETE DESCRIPTION	TOTALS
SUMMARY:		
	Preliminary Authorized Amount (Survey & Permits)	\$25,000
	Supplemental Authorization Amount	<u>\$1,632,327</u>
	Total Authorized Cost	<u><u>\$1,657,327</u></u>

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